



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(Case No. 02-1059-A)

In re the Application of:

Gang Xue and Jan Van Houdt

Filing Date: October 7, 2003

Serial No.: 10/680,878

For: Single Bit Nonvolatile Memory Cell and
Methods for Programming and Erasing
Thereof

Examiner: To be assigned

Group Art Unit: 2818

Confirmation No.: 6424

Mail Stop Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION OF PAUL W. CHURILLA

Dear Sir:

In support of this Petition, I, Paul W. Churilla, attorney of record for IMEC in this matter, hereby declare, on behalf of Interuniversitair Microelektronica Centrum (IMEC):

1. IMEC is the assignee of the present application. An assignment giving claim of title from the named inventor Jan Van Houdt to IMEC and a Confidentiality agreement between IMEC and Gang Xue including a duty to assign are being submitted for recordation along with this Declaration under separate cover. (Copies of assignment recordation papers and the Confidentiality Agreement are attached hereto as **Exhibit A** and **Exhibit B**, respectively)

2. This petition, and acceptance of the accompanying Declaration under 37 C.F.R. § 1.63, is necessary to preserve the rights of IMEC or to prevent irreparable damage to IMEC's interests.

3. Gang Xue failed to report to IMEC to fulfill the terms of his research relationship with IMEC on or about September 26, 2003. The last communication received by Gang Xue's supervisor at IMEC, Jan Van Houdt, was an email received on September 17, 2003. (A copy of this email is attached herewith as **Exhibit C.**) Specifically, Mr. Xue failed to report for a scheduled meeting with Mr. Van Houdt and Professor H. Maes at IMEC's Leuven, Belgium facility on September 26, 2003 regarding his research work. A letter was sent to Mr. Xue on September 30, 2003 from IMEC's head of personnel, Mr. Jan Vangeenberghe, regarding Mr. Xue's absence at the meeting of September 26, 2003. This letter further notified Mr. Xue that he no longer had access to IMEC's facilities or computer network and officially terminated his research relationship with IMEC.

4. IMEC has been unable to obtain the signature of named inventor Gang Xue on the accompanying Declaration under 37 C.F.R. § 1.63 (hereafter "Declaration") after diligent efforts to do so.

5. As explained below, multiple attempts have been made to contact Gang Xue at his last known residence address to obtain his execution of the Declaration and formal Assignment. These attempts were made in the period from October 23, 2003 through November 13, 2003. These attempts to contact Gang Xue have been without success.

6. The last known residence address of Gang Xue is Yzermolenstraat 32, bus 237, 3001 Leuven, Belgium.

7. Mr. Andre Clerix, a Patent Officer for IMEC, personally went to the last known residence address of Gang Xue on October 21, 2003 at approximately 7:00 p.m. Belgium time with a copy of the Declaration and Assignment for execution. Mr. Clerix rang the bell of that address without response from anyone in the apartment.

8. A registered letter enclosing the Declaration as well as an Assignment for execution in the above-referenced matter was then sent to Gang Xue at his last known residence address on October 23, 2003 by Ms. Ingeborg Boerenkamp of IMEC. The letter was returned to IMEC unopened and without execution of the documents. (Copies of the front of the registered mail envelope, the letter and the formal documents that were enclosed therein are attached as **Exhibit D.**)

9. A second registered letter enclosing the Declaration for execution in the above-referenced matter was sent to Gang Xue at his last known residence address on November 13, 2003 by Ms. Ingeborg Boerenkamp of IMEC. This letter was also returned to IMEC unopened and without execution of the document. (Copies of the front of the second registered mail envelope and the second letter sent to Gang Xue are attached as **Exhibit E.**)

10. Based on the foregoing, IMEC respectfully submits that Gang Xue is either unwilling or unavailable to execute the Declaration for the present application, as the attempts to contact him have been not been responded to. Diligent efforts have been made to obtain execution of the Declaration by Gang Xue. Therefore, the requirements of 37 C.F.R. § 1.47 and MPEP § 409.03 have been met.

11. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.


Conclusion

In view of the foregoing, it is respectfully requested that the Declaration under 37 C.F.R. § 1.63 be accepted without named inventor Gang Xue's signature.

Respectfully Submitted,

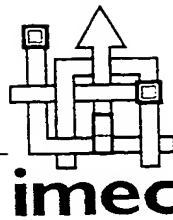
McDonnell Boehnen Hulbert & Berghoff LLP

Date: July 2, 2004

By: 
Paul W. Churilla
Reg. No. 47,495

2552

BEST AVAILABLE COPY



Niet Payrollers categorieën 5 tot en met 22

CONFIDENTIALITY AGREEMENT

Between :

Xue Gang

during his/her stay in Belgium residing at Terbank 01.60

hereinafter referred to as the Scientist,

and

IMEC vzw,

with offices at Kapeldreef 75, 3001 Leuven, Belgium
represented by Prof. R. Van Overstraeten, President,
hereinafter referred to as IMEC.

Whereas IMEC is willing to offer scientific facilities to the Scientist, the following has been agreed between the two parties :

Article 1 : Scope

The Scientist will be assigned to the R&D team under the responsibility of MAP

X

Article 3 : Employer

IMEC can in no way be considered as the employer of the Scientist.

Article 4 : Research Results

Intellectual property rights in the results of the research work performed by the Scientist during his/her stay at IMEC will be transferred by the Scientist to IMEC. However, the Scientist is allowed to use the results for his/her own research purposes.

In the event that it is necessary for the Scientist to disclose these results to third parties a licence from IMEC will be required. The conditions of that licence Agreement will be discussed with such party.

The Scientist is at all time free to dispose of the know-how he/she already has obtained before the entry into force of this Agreement or will obtain outside this Agreement.

Article 5 : Publications

The publication by the Scientist of the results or contents of the research he/she will be working on during his/her stay at IMEC, requires the prior consent of IMEC. If however IMEC has not replied to a request for publication within one month after IMEC has received the paper, which is intended to be published, IMEC will be considered to have agreed to this publication.

In case the publication of the results makes part of the PhD thesis of the Scientist, IMEC will evaluate the request for publication on the scientific relevance of this part of the thesis. IMEC is entitled to postpone such publication until IMEC has taken the necessary steps in order to obtain the intellectual property protection for the results included in such publication.



Article 6 : Confidentiality

At any and all time, during his/her stay at IMEC as well as after it, the Scientist will not disclose technical, scientific, financial and commercial confidential information of IMEC, including the results meant under art. 4, to third parties, nor will he/she use it for his/her own or someone else's advantage.

Confidential Information of IMEC i.a. includes all information relating to IMEC as an entity and as a company. This includes but is not limited to the client listings and client information; the technical, commercial and financial information, the information about the pay-roll of IMEC; quotations, reports, technical drawings and plans; and other information, whatever the nature is, which relates directly or indirectly to the activities of IMEC and which come to the attention of the Scientist in any way or with which he/she became familiar during his/her stay at IMEC.


Confidential Information of IMEC includes also the contracts IMEC concluded with third parties and the know-how disclosed to IMEC and/or generated by IMEC or by this third party within in the framework of these contracts. The Scientist will obey all confidentiality clauses IMEC has agreed upon in its contracts with third parties. The Scientist will be informed about these contracts whenever it seems necessary.

Exceptions to this article can only be made with the explicit permission (in writing) of IMEC or if otherwise stated in this Agreement.

Article 7 : Access

At any and all time the Scientist will obey the internal rules of IMEC and shall be subject to the IMEC safety procedures and the procedures for quality assurance.

The Scientist will be informed of the access procedures to the IMEC premises and to the several facilities within IMEC such as the cleanroom and the laboratories. the Scientist will have free access to his/her office, to the library and the IMEC restaurant.

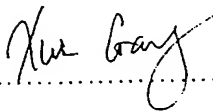


Article 8 : Applicable Law, Court of Competence

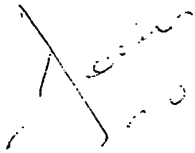
This Agreement shall be construed and applied in accordance with the Laws of Belgium. All disputes between the parties in connection with this Agreement will first be discussed in good faith between the parties, in order to try to find an amicable solution. However should a dispute relating to this Agreement arise, which cannot be resolved amicably, then the parties hereby agree that the courts of Leuven shall be solely competent to take notice of this dispute.

Done at Leuven in two originals, one for each party, on

*


.....

*IMEC vzw



Prof. R. VAN OVERSTRAETEN
President

.....
Vice-President-division



-----Original Message-----

From: Xue Gang
Sent: Wednesday, September 17, 2003 19:54
To: Maes Herman; Van Houdt Jan; Haspeslagh Luc; Wellekens Dirk; De Vos Joeri; Breuil Laurent
Subject: 013 SONOS

Hello, this is a short report for 013 SONOS,
I plan to use it for a submission of ED letter, if you have any
comment, please let me know. regards

--

Gang Xue

Flash Memory Group
Silicon Process and Device Technology Division
IMEC Kapeldreef 75 (<http://www.imec.be>)
Leuven, Belgium

e-mail: xue@imec.be
telephone: 32-16-281253 (Lab)
Fax: 32-16-281844
Mobile Phone: +32-(0)496-48-38-03

17

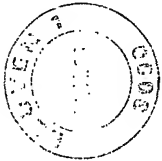
H2

Gang Xue

Yzennelstraat 32 bus 237

~~3001 Leuven~~

REGIO 5
10051
DAKF46A08



AFWEZIG	BERICHT GELATEN OP	ABSENT AVIS REMISSIE
---------	-----------------------	----------------------------

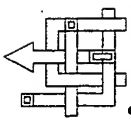
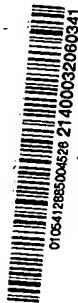
AANGETEKEN

POSTCODE VOOR VERZENDING	VERHUISD	OVERLEDEN	GEWEEGD	NIET AGERHAALD	ONBEKEND	ONTVAKT DE INZENDING VAN NIET WET OP 4-1 JANUARI 2000	ADRES	ONVOLLEDIG	ONJUIST
3000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ELZANDER	WED. J. J. J.	WED. J. J. J.	WED. J. J. J.	WED. J. J. J.	WED. J. J. J.	WED. J. J. J.	WED. J. J. J.	WED. J. J. J.	WED. J. J. J.

R 0106412885004528 21400032060341 BEL

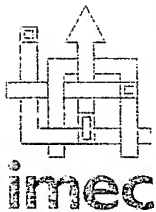
0106412885004528 21400032060341

AR
RP



Kipeldreef 75
B-3001 Leuven Belgium

imec



O/Ref. : ib/B415IB/02/55/10/03

Gang Xue

Ijzermolenstraat 32, bus 237

3001 Leuven

Registered mail

Leuven, October 23, 2003

Dear Mr. Gang Xue,

Subject : *US regular patent application filed October 7, 2003*

Title "Single bit nonvolatile memory cell and methods for programming and erasing thereof"

O/Ref. : 2002/055

Please find enclosed two formal documents concerning the above mentioned patent application for signature. Could you please sign and date in blue ink and send it back to me as soon as possible.

Thank you in advance,

Kind regards,

Ingeborg Boerenkamp



Case No.: 02-1059-A

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

SINGLE BIT NONVOLATILE MEMORY CELL AND METHODS FOR PROGRAMMING AND ERASING THEREOF

the specification of which is attached hereto unless the following space is checked:

☒ was filed on October 7, 2003 as United States Application Serial Number _____.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR § 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT international application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s):

	<u>Number</u>	<u>Country</u>	<u>Day/Month/Year Filed</u>
1.			
2.			

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below:

	<u>Application Number</u>	<u>Filing Date</u>
1.	60/416,610	October 7, 2002
2.		

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s), or § 365(c) of any PCT international application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 C.F.R. § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

<u>Application Number</u>	<u>Filing Date</u>	<u>Status: patented, pending, abandoned</u>
1.		
2.		

I hereby appoint the practitioners associated with the Customer Number provided below to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith, and I direct that all correspondence be addressed to that Customer Number.

Customer Number: **020306**
Principal attorney or agent: Paul W. Churilla
Telephone number: 312-913-0001

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of first inventor: Gang Xue

Inventor's signature: _____ Date: _____
Residence: Leuven, Belgium
Citizenship: China
Post Office Address: c/o IMEC vzw, Kapeldreef 75, 3001 Leuven, Belgium

Full name of second inventor: Jan Van Houdt

Inventor's signature: _____ Date: _____
Residence: Bekkevoort, Belgium
Citizenship: Belgium
Post Office Address: c/o IMEC vzw, Kapeldreef 75, 3001 Leuven, Belgium

ASSIGNMENT

Case No.: **02-1059-A**
Inventors: **Gang Xue and Jan Van Houdt**

Serial No.: _____
Filing Date: **October 7, 2003**

In consideration of 0.25 E (0.25 Euro) and other good and valuable considerations in hand paid, the receipt and sufficiency whereof are hereby acknowledged, the undersigned hereby assign to:

**Interuniversitair Microelektronica Centrum (IMEC), Kapeldreef 75, 3001 Leuven, Belgium,
a corporation in the country of Belgium**

and

**Infineon AG, St.-Martin-Strasse 53, 81541 Munich, Germany,
a corporation in the country of Germany**

its successors and assigns, the entire right, title and interest in the invention or improvements of the undersigned disclosed in an application for Letters Patent of the United States, entitled:

SINGLE BIT NONVOLATILE MEMORY CELL AND METHODS FOR PROGRAMMING AND ERASING THEREOF

and identified as:

Case No. 02-1059-A

in the offices of MCDONNELL BOEHNEN HULBERT & BERGHOFF and in said application and any and all other applications, both United States and foreign, which the undersigned may file, either solely or jointly with others, on said invention or improvements, and in any and all Letters Patent of the United States and foreign countries, which may be obtained on any of said applications, and in any reissue or extension of such patents, and further assigns to said assignee the priority right provided by the International Convention.

The undersigned hereby authorize and request the Commissioner of Patents and Trademarks to issue said Letters Patent to said assignee.

The undersigned hereby authorize and request the attorneys of record in said application to insert in this assignment the filing date and serial number of said application when officially known, and the date of execution of the application.

The undersigned warrant themselves to be the owners of the entire right, title and interest in said invention or improvements and to have the right to make this assignment, and further warrant that there are no outstanding prior assignments, licenses, or other encumbrances on the interest herein assigned.

For said considerations the undersigned hereby agree, upon the request and at the expense of said assignee, its successors and assigns, to execute any and all divisional, continuation and substitute applications for said invention or improvements, and any necessary oath, affidavit or declaration relating thereto, and any application for the reissue or extension of any Letters Patent that may be granted upon said application and any and all applications and other documents for Letters Patent in foreign countries on said invention or improvements, that said assignee, its successors or assigns may deem necessary or expedient, and for the said considerations the undersigned authorize said assignee

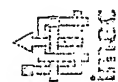
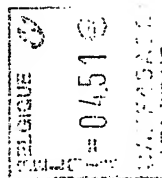
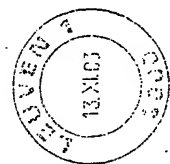
to apply for patents for said invention or improvements in its own name in such countries where such procedure is proper and further agree, upon the request of said assignee, its successors and assigns, to cooperate to the best of the ability of the undersigned with said assignee, its successors and assigns, in any proceedings or transactions involving such applications or patents, including the preparation and execution of preliminary statements, giving and producing evidence, and performing any and all other acts necessary to obtain, maintain and enforce said Letters Patent, both United States and foreign, and vest all rights therein hereby conveyed in the assignee, its successors and assigns, whereby said Letters Patent will be held and enjoyed by the said assignee, its successors and assigns, to the full end of the term for which said Letters Patent will be granted, as fully and entirely as the same would have been held and enjoyed by the undersigned if this assignment had not been made.

DATED: _____

Gang Xue

DATED: _____

Jan Van Houdt

Kapalderf 75
B-3001 Leuven Belgium

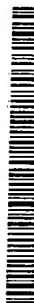
AFWEZIG BERICHT GELATEN OP	ABSENT AVIS REMIS LE
---	-----------------------------------

Ha

R 0105412865004528 21200009187474 **BEL** 

0105412885004528 21200009187474 BEL

0105412966004528 21200009187474



0105412885004528 21200009187474

AR
RP

[illegible]

Gang Xue

Yermolenstraat 32, bus 237

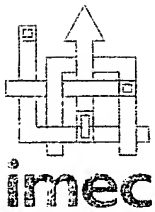
~~300-1-1000~~

7

MEC Kapeldreef 75 B-3001 Leuven - Belgium

MEC Kapeldreef 75 B-3001 Leuven - Belgium

BEST AVAILABLE COPY



O/Ref. : ib/B447IB/02/55/11/03

Gang Xue

Ijzermolenstraat 32, bus 237

3001 Leuven

Registered mail

Leuven, November 13th, 2003

Dear Mr. Gang Xue,

Subject : *US regular patent application filed October 7, 2003*

Title "Single bit nonvolatile memory cell and methods for programming and erasing thereof"

O/Ref. : 2002/055

Please find enclosed a formal document concerning the above mentioned patent application for signature. Could you please sign and date in blue ink and send it back to me as soon as possible.

Thank you in advance,

Kind regards,

Ingeborg Boerenkamp